

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: RICHARD M. GOLDMAN  
COOLEY GODWARD LLP  
3000 EL CAMINO REAL  
FIVE PALO ALTO SQUARE  
PALO ALTO CA 94306-2155

## PCT

### NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

03 JUL 2000

Applicant's or agent's file reference

SIEB012/00WO

#### IMPORTANT NOTIFICATION

International application No.

PCT/US99/04581

International filing date (day/month/year)

03 MARCH 1999

Priority Date (day/month/year)

03 MARCH 1998

Applicant

SIEBEL SYSTEMS, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Authorized officer

TARIQ R. HAFIZ

Facsimile No. (703) 305-3230

Telephone No. (703) 305-3800

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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>SIEB012/00WO</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/US99/04581</b>	International filing date (day/month/year) <b>03 MARCH 1999</b>	Priority date (day/month/year) <b>03 MARCH 1998</b>
International Patent Classification (IPC) or national classification and IPC <b>IPC(7): GO6F 09/445 and US Cl.: 717/11</b>		
Applicant <b>SIEBEL SYSTEMS, INC.</b>		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>4</u> sheets.
	<input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
	These annexes consist of a total of <u>4</u> sheets.
3.	This report contains indications relating to the following items: <div style="margin-left: 20px;">           I <input checked="" type="checkbox"/> Basis of the report            II <input type="checkbox"/> Priority            III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step or industrial applicability            IV <input type="checkbox"/> Lack of unity of invention            V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement            VI <input type="checkbox"/> Certain documents cited            VII <input type="checkbox"/> Certain defects in the international application            VIII <input type="checkbox"/> Certain observations on the international application         </div>

Date of submission of the demand  <b>01 OCTOBER 1999</b>	Date of completion of this report  <b>12 JUNE 2000</b>
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer <div style="text-align: center;">   <b>TARIQ R. HAFIZ</b> </div>
Facsimile No. (703) 305-3230	Telephone No. (703) 305-3800

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/04581

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☐ the international application as originally filed
- ☒ the description:  
pages 1-35, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of
- ☒ the claims:  
pages NONE, as originally filed  
pages NONE, as amended (together with any statement) under Article 19  
pages NONE, filed with the demand  
pages 36-39, filed with the letter of 07 MARCH 2000
- ☒ the drawings:  
pages 1-4, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of
- ☒ the sequence listing part of the description:  
pages NONE, as originally filed  
pages NONE, filed with the demand  
pages NONE, filed with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**These elements were available or furnished to this Authority in the following language  which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☒ The amendments have resulted in the cancellation of:**

- ☒ the description, pages NONE
- ☒ the claims, Nos. 11-15
- ☒ the drawings, sheets/fig NONE

**5. ☒ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/04581

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement**

Novelty (N)	Claims <u>2-5 and 7-10</u>	YES
	Claims <u>1 and 6</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-10</u>	NO
Industrial Applicability (IA)	Claims <u>1-10</u>	YES
	Claims <u>NONE</u>	NO

**2. citations and explanations (Rule 70.7)**

Claims 1 and 6 lack novelty under PCT Article 33(2) as being anticipated by Cheng et al., EP 0 811 942 A2. Cheng et al. clearly teaches of setting minimum and maximum versions of installed software for clients; defining contents of software version upgrade kits from the minimum and maximum versions of the installed software, wherein the upgrade kits comprise of files, actions, and an upgrade wizard to upgrade one or more software components from one version to another version; and writing the contents of the software version upgrade kits to a data base as a table of contents, wherein the table shows the contents of an upgrade kit and components are required by a corresponding upgrade (see Figures 13(a)-13(e) and page 13).

Cheng et al. also teach of instantiating an application on the client computer; verifying that currently running software components are up-to-date; interrogating installed software on the client to determine the installed versions on the client with respect to up-to-date components; and comparing the table of contents of software version upgrade kits to software installed on the client to determine software version upgrade kits needed to be invoked on the client to effect upgrades from a currently installed software version to a required software version (see pages 6 and 10).

Cheng et al. further discloses building the software upgrade kits from the table of contents; downloading copies of the software upgrade kits from the server to a server to a client to be upgraded; creating a backup of local files before applying the upgrade(s); invoking an upgrade wizard to upgrade software on the client, wherein the upgrade wizard reads a list of upgrade kit items to be performed for the software version upgrade from a driver file an a list of upgrades to be run and the state of each upgrade from a state file; and after upgrading the software on the client, restarting the original program that invoked the upgrade (see pages 6, 11 and 17).

Claims 2 and 7 lack an inventive step under PCT Article 33(3) as being obvious over Cheng et al., EP 0 811 942 A2, in view of Iwamoto et al, US Patent No. 5,715,462. Cheng et al. teaches of upgrading a software system (see claim 1 above) and (Continued on Supplemental Sheet.)

**Supplemental B x**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**I. BASIS OF REPORT:**

5. (Some) amendments are considered to go beyond the disclosure as filed:  
NONE

**V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):**

tracking upgrades (see page 17), but fails to explicitly disclose a method of rolling changes in the event of an error.

Iwamoto et al. discloses tracking the progress of the upgrade, rolling-back changes when an error occurs, instantiating the backed-up local files and restarting the upgrade from a save point (see Figure 4 and column 5, lines 18-55, rolling back of changes in the event of an error).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add error recovery to the installation system of Cheng et al. to provide a means for reverting a software package in the event that a upgrade was unsuccessful.

Claims 3 and 8 lack an inventive step under PCT Article 33(3) as being obvious over Cheng et al., EP 0 811 942 A2, in view of Kirouac et al, US Patent No. 5,155,847. Cheng et al. teaches of a software upgrading system (see claim 1 above), but fails to explicitly address a monitoring the progress of a software upgrade.

Kirouac et al. discloses a method of monitoring the progress of an upgrade on a client from a server (see Figure 2(b) and Column 9, lines 34-63, server verification functions).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Cheng et al.'s method of upgrading with Kirouac et al.'s method of monitoring the server side installation to maintain an efficient verification means which substantiates the progress of installation.

Claims 4, 5, 9 and 10 lack an inventive step under PCT Article 33(3) as being obvious over Cheng et al., EP 0 811 942 A2, in view of Siebel Systems, "Siebel Systems: Siebel announces production shipment of Siebel Enterprise Applications Version 3.0". Cheng et al teaches of a software upgrading system (see claim 1 above), but fails to explicitly address downloading upgrade kits and upgrading databases.

As per claims 4 and 9, Siebel Systems discloses downloading one or more upgrade kits to a client during docking, before the client requires the upgrade and installing the upgrade subsequent to docking (see page 1, automating remote software upgrades through the use of "Siebel Anywhere"). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Cheng et al.'s method of upgrading with Siebel Systems's method for allowing the downloading or upgrading kits during docking for subsequent upgrading, to expand upgrade capabilities to include more remote accessibility.

As per claims 5 and 10, Siebel Systems discloses a program code for upgrading database schema resident on the client computer (see page 2). It would have been obvious to one of ordinary skill at the time of the invention to combine Cheng et al.'s method of upgrading with Siebel Systems's method for upgrading database schema, to further expand upgrade capabilities and provide a more efficient tool.

Claims 1-10 meet the criteria set out in PCT Article 33(4), because the ability to upgrade software on client computers from a server computer has use in the network computer field.

----- NEW CITATIONS -----

NONE

IPEA/US 07 MAR 2000

We claim:

1. A method of distributing and installing software upgrades on a client computer in a client server system comprising:
  - setting minimum and maximum versions of installed software for clients;
  - 5 defining contents of software version upgrade kits from the minimum and maximum versions of the installed software, the software version upgrade kits comprising files, actions, and an upgrade wizard to upgrade one or more software components from one version to another version;
  - writing the contents of the software version upgrade kits to a database as a  
10 table of contents, said table of contents showing the contents of an upgrade kit and which software components are required by a corresponding upgrade;
  - instantiating an application on the client computer;
  - verifying that software components for the currently running program are up-to-date;
  - 15 if any software component in the currently running program is not up-to-date, interrogating other installed software on the client to determine the installed versions on the client;
  - comparing the table of contents of software version upgrade kits to software installed on the client to determine software version upgrade kits needed to be  
20 invoked on the client to effect upgrades from a currently installed software version to a required software version;
  - building the software upgrade kits from the table of contents;
  - downloading copies of the software upgrade kits from the server to a client to be upgraded;
  - 25 creating a backup of local files before applying the upgrade;

invoking an upgrade wizard to upgrade software on the client, said upgrade wizard reading a list of upgrade kit items to be performed for the software version upgrade from a driver file and a list of upgrades to be run and the state of each upgrade from a state file, and performing the upgrades; and

5           after upgrading the software on the client, restarting the original program that invoked the upgrade.

2.       The method of claim 1 tracking the progress of an upgrade, rolling back changes when an error occurs, instantiating the backed up local files, and restarting the upgrade from a save point.

10       3.       The method of claim 1 comprising monitoring the progress of a software upgrade on a client from a server.

4.       The method of claim 1 downloading one or more upgrade kits to a client before the client requires the upgrade.

15       5.       The method of claim 1 wherein the software being upgraded is database management software, and the upgrades further include database schema changes.

6.       A client-server computer system comprising a server computer and at least one client computer periodically docking with the server computer, said server computer including a database management system and a database thereon, and wherein said database is partially replicated from the server computer to the client  
20       computer during docking, said client-server system being configured to apply upgrades to software resident on the client computer from the server computer, said client-server computer system further being configured to:

set minimum and maximum versions of installed software for the client computer;

25       define contents of software version upgrade kits from the minimum and maximum versions of the installed software, the software version upgrade kits comprising files, actions, and an upgrade wizard to upgrade one or more software components from one version to another version;

write the contents of the software version upgrade kits to a database as a table of contents, said table of contents showing the contents of an upgrade kit and which software components are required by a corresponding upgrade;

instantiating a software program on the client;

- 5            verifying that software components for the currently running program are up-to-date;

if any software component in the currently running program is not up-to-date, interrogating other installed software on the client to determine the installed versions on the client;

- 10           comparing the table of contents of the software version upgrade kits to the software installed on the client computer to determine software version upgrade kits needed to be downloaded from the server computer to the client computer and invoked on the client computer to effect upgrades from a currently installed software version to a required software version;

- 15           building the software upgrade kits from the table of contents;

downloading copies of the software upgrade kits from the server computer to the client computer;

creating on the client computer a backup of local files thereon before applying the upgrade;

- 20           invoking the upgrade wizard to upgrade software on the client, said upgrade wizard reading a list of upgrade kit items to be performed for the software version upgrade from a driver file and a list of upgrades to be run and the state of each upgrade from a state file and performing the upgrades; and

restarting the original software program that invoked the upgrade.

- 25        7.        The client-server computer system of claim 6 further configured to track the progress of an upgrade, roll back changes when an error occurs, instantiate the backed up local files, and restart the upgrade from a save point.

8. The client-server computer system of claim 6 further configured to monitor the progress of a software upgrade on a client from a server.
9. The client-server computer system of claim 6 further configured to download one or more upgrade kits to a client during docking and before the client requires the  
5 upgrade, and install the upgrade subsequent to docking.
10. The client-server computer system of claim 6 further configured to apply upgrades to software resident on the client computer from the server computer and upgrade database schema resident on the client computer.